



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,765	02/04/2004	Roko S. Bujas	1303-095 81676/0703	5701
22242	7590	12/02/2005	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			CHRISTENSEN, RYAN S	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/772,765

Applicant(s)

BUJAS ET AL.

Examiner

Ryan Christensen

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/02/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/02/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/02/2004 5/11/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "97", "98", and "99". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The disclosure is objected to because of the following informalities: Line 22 on page 9 refers to an ionization detector in chamber "97". No such chamber is illustrated in the drawings. For the purposes of examination, the examiner assumes this is chamber "79" in the drawings.

### ***Claim Objections***

Claims 1 and 11 are objected to because of the following informalities: The phase "0.0001 to about 0.00001 gm/sq.m/day or less" is not clear. It is not clear whether the claim is limited to the range 0.0001 to about 0.00001, or to limited to 0.0001 or less. The claim appears to be limited to the latter. Also, note that the written specification lacks basis for the 0.0001 ( $10^{-4}$ ) figure. The specification discloses a range  $10^{-5}$  to  $10^{-6}$  (page 5, line 28 and page 9, line 21). Appropriate correction is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, 5, 7, 11-13, and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 7 and 8 of U.S. Patent No. 6,804,989 (Bujas). Although the conflicting claims are not identical, they are not patentably distinct.

With respect to claim 1, Bujas teaches every limitation in its claims except the 10 cubic centimeter volume of the downstream chamber, the 1.5 liter per hour rate, the 2 liters volume of the ionic chamber, and the sensitivity. (Claim 3, lines 24 - 42). With respect to claim 1, it would have been obvious to employ a down stream chamber of not greater than 10 cubic centimeters, as one of ordinary skill would be inclined to employ small volumes for a closed measuring system. Also, it would have been obvious to employ a ionic chamber of not greater than 2 liters because one of ordinary skill would be inclined to employ minimally sized analyzer volume (to minimize the required sample that need be drawn) that contains a commercially ("commercial", admission on page 9, line 13) available monitor measurement in claim 1. Finally, it would have been obvious to employ a carrier rate of about 1.5 liter per hour as that rate would permit for accurate measuring of permeation through a sample in a device having the claimed dimensions. The claimed sensitivity (last three lines) appears to be commensurate with the claimed dimensions.

With respect to claim 2, Bujas teaches the radioactive gas being tritiated water vapor (HTO) (HTO, Claim 3, Col. 7, lines 28-29).

Art Unit: 2858

With respect to claim 4, Bujas teaches the radioactive gas is tritiated water vapor (HTO, Claim 3, Col. 7, lines 28-29) and the carrier gas is methane. (Claim 7, Col. 8 lines 16-17).

With respect to claim 5, Bujas does not explicitly teach said radioactive gas being Carbon<sup>14</sup> Monoxide (<sup>14</sup>CO). However, it would have been obvious to one of ordinary skill in the art at the time of the invention Carbon<sup>14</sup> Monoxide (<sup>14</sup>CO) could be used in place of HTO because they are equivalents in the art used for the same purpose.

With respect to claim 7, Bujas teaches said carrier gas entering a second chamber at a pressure just sufficient to maintain the desired very slow flow (Claim 3, Col. 7, lines 35-37) and is vented to atmosphere through an absorption device which removes all of said radio active compound from said carrier gas steam (Claim 3 Col. 7, lines 46-48).

With respect to claim 11, Bujas teaches every limitation in its claims except the 10 cubic centimeter volume of the downstream chamber, the 1.5 liter per hour rate, the 2 liters volume of the ionic chamber, and the sensitivity. (Claim 1, lines 52 - 67). With respect to claim 11, it would have been obvious to employ a down stream chamber of not greater than 10 cubic centimeters, as one of ordinary skill would be inclined to employ small volumes for a closed measuring system. Also, it would have been obvious to employ a ionic chamber of not greater than 2 liters because one of ordinary skill would be inclined to employ minimally sized analyzer volume (to minimize the required sample that need be drawn) that contains a commercially ("commercial", admission on page 9, line 13) available monitor measurement in claim 11. Finally, it

would have been obvious to employ a carrier rate of about 1.5 liter per hour as that rate would permit for accurate measuring of permeation through a sample in a device having the claimed dimensions. The claimed sensitivity (last three lines) appears to be commensurate with the claimed dimensions.

With respect to claim 12, Bujas teaches a station for removing all radioactive gas from the carrier gas stream following its exit from said radiation chamber and for accumulating said removed gas (Claim 1, Col. 7, lines 3-6).

With respect to claim 13, Bujas teaches a ball valve for segregating said radioactive gas supply means from communication from said first chamber following the testing of one sample (Claim 1 Col. 7, lines 11-17 and Claim 2, Col. 7, lines 18-20) and means for purging said first chamber with gas to remove all radioactive gas therefrom and for directing said purge gas into said removal station prior to venting of said purge gas (Claim 1, Col. 7, lines 11-17).

With respect to claim 18, Bujas teaches a conversion means that has the capability to present either an instantaneous rate of permeation or an average rate measured over a period of hours or days (Claim 1, Col. 6, lines 65-67, and Claim 3, Col. 7, lines 38-39).

Claims 3 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,804,989 in view of U.S. Patent No. 3,580, 067 (Mandrell).

With respect to claim 3, Bujas does not explicitly teach relative humidity of H<sub>2</sub>O between about 85% and 100% supplied to the first chamber through out the entire test

period for the sample. Mandrell teaches a relative humidity of HTO between about 85% and 100% supplied to the first chamber through out the entire test period for the sample (Col. 1, lines 17-24 and Col. 2, lines 17 – 27). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in Bujas with the improvements in Mandrell because the invention claimed in Bujas contains a means to control humidity and 100% relative humidity facilitates faster permeation of the radioactive gas.

With respect to claim 14, Mandrell teaches a relative humidity of HTO between about 85% and 100% supplied to the first chamber through out the entire test period for the sample (Col. 1, lines 17-24 and Col. 2, lines 17 – 27).

Claim 6 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,804,989 in view of U.S. Patent No. 5,390,539 (Mayer). With respect to claim 6, Bujas does not explicitly teach dry Argon as a carrier gas. Mayer teaches dry Argon as a carrier gas (Col. 2, lines 44-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in Bajas with the improvements in Mayer because Argon is a suitable carrier known in the art.

Claims 8 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,804,989 in view of U.S. Patent No. 3,590,634 (Pasternak).

With respect to claims 8, Bujas does not explicitly teach the gas carrier entering at a pressure of not greater than about 1.1 atm. Pasternak teaches the carrier gas at



Art Unit: 2858

atmospheric pressure (1 atm, Col. 1, lines 49-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in Bujas with the limitation taught in Pasternak because permeability at atmospheric pressure is a desirable measurement (Pasternak, Col. 1, lines 30-35).

With respect to claim 16, Bujas does not explicitly teach the mounting means including a third chamber which surrounds the periphery of said mounted film composite and wherein said carrier gas circulating means can circulate slow flow of carrier gas through said third chamber. Pasternak does teach a mounting means including a third chamber which surrounds the periphery of said mounted film composite and wherein said carrier gas circulating means can circulate slow flow of carrier gas through said third chamber (Fig. 1, 110). It would have been obvious to modify the teachings of Bujas with this improvement in order to provide an additional barrier to entrance of air into the down stream chamber (Pasternak, Col. 4, lines 19-25).

Claims 9 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,804,989 in view of U.S. Pre-grant Publication 2002/0162384 (Sharp).

With respect to claim 9, Bujas does not explicitly state the film tested is a polymeric film. However, it is well known in the art to test polymeric film samples for permeability (Sharp, Page 1, Paragraph 10 and Page 2, Paragraph 26).

With respect to claim 15, Bujas does not explicitly state the film tested is a polymeric film. However, it is well known in the art to test polymeric film samples for permeability (Sharp, Page 1, Paragraph 10 and Page 2, Paragraph 26).

Claim 10 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,804,989 in view of U.S. Pre-grant Publication 2002/0152800 (Buoten). With respect to Claim 10, Bujas does not explicitly teach a sample as an adhesive perimeter between two thin plates. Buoten teaches testing on a sample base of PolyLed/OLED lids and OLED seal materials. (Page 3, Paragraph 59).

#### ***Allowable Subject Matter***

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 19 and 20 are allowed. With respect to claim 19, the prior art does not explicitly teach or make an obvious combination including the structure claimed for testing the permeability of an adhesive material for making a continuous seal. Claim 20 is allowable because it is dependant on an allowable claim.

#### ***Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 4,656,865 (Callan) discloses a system for testing permeability including scrubbers for removing one or more components after the downstream analysis.

U.S. 6,688,160 (Hackett) discloses a system for measuring permeability at low flow rates, approaching zero.

U.S. 3,498,110 (Brun) discloses a system for determining permeability of films where the upstream and down stream chambers or small in volume, under 10 cm<sup>3</sup>.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Christensen whose telephone number is 571 - 272-2683. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571- 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RSC

  
HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800